

MINIATURE DEPTH AND LEVEL PRESSURE SENSOR MTM/N10



15

Features

- Submersible, 0.39" diameter
- Fully isolated sensing element
- Accuracies of $\pm 0.1\%$, $\pm 0.25\%$ or $\pm 0.5\%$
- Ranges from 0 to 15 psi to 0 to 150 psi
- Gauge or absolute pressure
- Optional separate electronics for amplified output
i.e. 4 to 20 mA, 0 to 5/10 VDC

Product overview and applications

The MTM/N10 depth and level pressure sensor is available for applications where space is very limited. The housing diameter of 0.39 inches offers the user an ideal high performance level measurement in small diameter, i.e. 1/2" monitoring wells, stand pipes and bore holes. The stainless steel construction and integral polyurethane cable provide a reliable long term solution for these difficult-to-measure applications. Kevlar is used as a cable reinforcement to avoid any elongation, particularly when long lengths of cable are required for deep wells. Long term stability of typically $\pm 0.1\%$ per year also contributes toward a maintenance-free installation.

STS also offers a range of 1" diameter dataloggers which can be supplied in-line or at the well head for continuous monitoring.

Specification

Measurement

Pressure ranges

Any range from 0 - 15 to 0 - 150 psi FS available, in any engineering units such as psi, Pa, in H₂O, bar.

Pressure types

Absolute and Gauge

Proof pressure

15 psi up to 150 psi: 3 x FS
max. 175 psi

Operating temperature range

25 to 125°F (process media)

Compensated temperature range

25 to 125°F

Temperature effects

±1.5% total for 25 to 125°F, > 50 psi FS
±2% total for 25 to 125°F, < 50 psi FS

Performance

Accuracy

≤ ±0.25% FS combined linearity, hysteresis and repeatability, ≤ ±0.5% FS available
≤ ±0.1% FS (on request, requires optional electronic package, Fig. 1)

Zero setting ±1 mV

Span setting ±2%

Typical hysteresis and repeatability is ±0.02%

Common mode voltage

1/2 supply voltage ±10%

Long term stability

0.1% FS/yr for pressure ranges > 30 psi FS

Prorated for ranges below 30 psi FS

Under standard conditions

Specification continued

Supply voltage

10 VDC standard, will operate 1 - 15 VDC

Output signal

Fig. 2 and 3:

Output ratiometric with supply voltage

For 10 VDC supply full scale output is 50 mV

Higher output signal on request

Fig. 1: In combination with option separate

electronic circuitry all common analog or

digital output signals available

Input impedance

> 10k ohm

Bridge resistance

3k ohm typical

Insulation resistance

> 50 megohms @ 500 VDC (@ 68°F)

Response time

< 0.1ms/10 to 90% FS

Construction

Pressure media compatibility

Stainless steel 316L, NBR seals

Pressure connection

3/8" diameter with closed nose cone (Fig.2,

supplied as standard) or open nose cone

(Fig.3).

Electrical connection

Polyurethane or Polyethylene cable

Weight

1 oz approximate (not including cable)

Ordering information

Please specify the following:

- 1) Model number - MTM/N10
- 2) Electrical connection
0 - Polyurethane cable
1 - Polyethylene cable
- 3) Pressure range, including eng. units, type
- 4) Accuracy
- 5) Cable length
- 6) Any special features: i.e. separate electronic circuitry

Example ordering format:

MTM/N10 - 100 psig - 0.25% - 20 feet cable

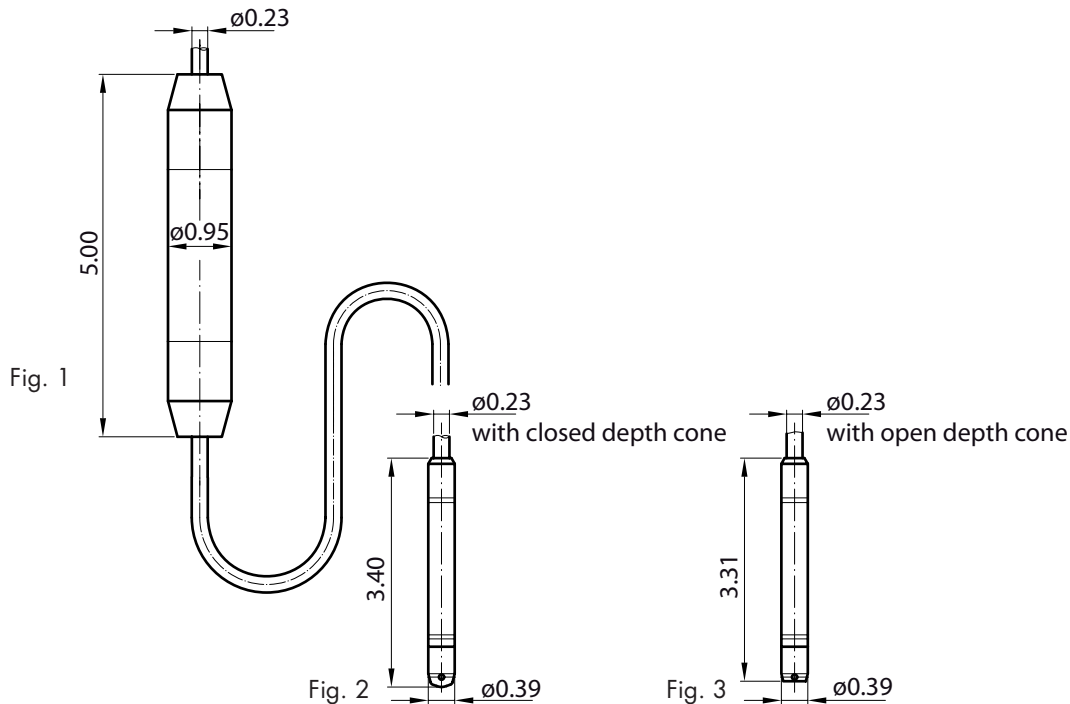
Options

STS offers a wide range of options for these and other similar transmitters. Please consult the factory for any special requirements.

Examples include:

- Alternate electrical configurations
i.e. 0 to 5 VDC, 0 to 10 VDC, 0 to 20 mA
RS 485, CANopen
- Lightning protection
- Intrinsic safety certification
- Cooling extension
- Explosion proof certification
- Pressure snubber
- Special oil filling for food application etc.
- Alternate construction i.e titanium, hastelloy
- Alternate seals i.e. EPDM, Kalrez
- Wide range of pressure connectors
- Wide range of electrical connectors
- Datalogging

Dimensions (inches)



Specifications may change without notice.

STS is registered ISO 9001-2000

10.00.0208C - 802



Process Measurement & Controls, Inc.

STS Sensors

11 Old Sugar Hollow Road
Danbury, CT 06810 U.S.A

Tel: 203-792-8686

Fax: 203-743-2051

e-mail: salesUS@sts-sensors.com

Internet: www.sts-sensors.com

Represented by: